

## Effects of ecological factors on size-related traits in the ground beetle *Carabus granulatus* L. (Coleoptera, Carabidae)

Sukhodolskaya R., Saveliev A.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

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### Abstract

© 2014, Pleiades Publishing, Ltd. Multivariate analysis of variation in the metric characters in the ground beetle *C. granulatus* has been performed. It has been shown that the beetle body size increases toward the center of its range, urbanization has a positive effect on all metric traits, but the effect of habitat vegetation has no definite trend. The structure of variation in the metric characters estimated by the principal components method depends on all ecological factors considered: the locality in the geographic range, level of anthropogenic influence, and degree of biotope openness.

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### Keywords

anthropogenic factor, ground beetles, latitudinal variation, morphometric variation, size variation in different biotopes